

## School Based Fluoride Mouthrinse Program – To Promote Oral Health & Reduce Tooth Decay

Tooth decay, also referred to as dental caries, is the most common chronic disease among children. An interaction of bacteria naturally found in a healthy human mouth and foods containing starches or sugars produce acid that can break down tooth enamel, leading to tooth decay. <sup>Figure 1</sup>

The 2000 Surgeon General Report on Oral Health addresses the role of fluoride in strengthening the tooth enamel and preventing tooth decay.<sup>1,2</sup>

Fluoride is found naturally in water, where the level can be measured. The optimal fluoride level in water sources for tooth decay prevention, is within 0.7-1.2 milligrams of fluoride per liter of water (mg/L).<sup>3</sup>

The Healthy People 2010 objectives recommend increasing the proportion of the US population served by community water systems with optimally fluoridated water to 75%.<sup>4</sup> Approximately 31% of the Montana population has access to optimally fluoridated water provided from a community water system.<sup>3</sup>

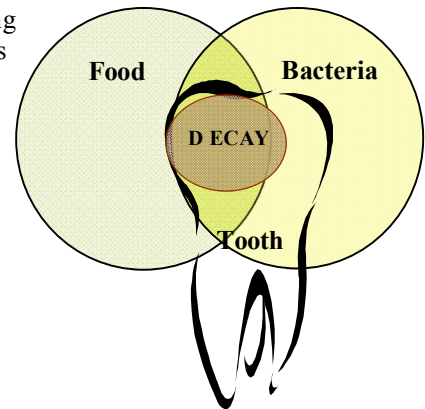


Figure 1. The process that leads to tooth decay

Recognizing the Surgeon General Report and Healthy People 2010 objectives, the Montana Department of Public Health and Human Services (DPHHS) Oral Health Program administers the school based Fluoride Mouthrinse (FMR) Program. The goal of the FMR Program is to promote oral health and reduce tooth decay by targeting children in kindergarten through sixth grade in communities with drinking water fluoride levels below the recommended optimal level. As a part of the program, schools may offer additional educational programs and services such as the Initial Rinse Program, Oral Health Screening or Dental Health Education.

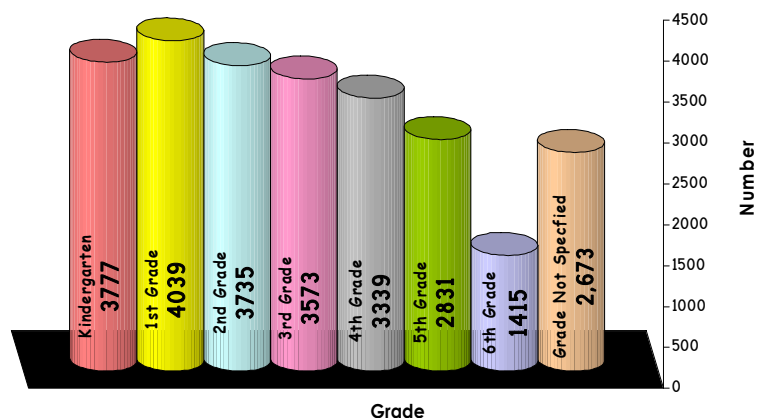
## How the Fluoride Mouthrinse Program is Organized and Administered

The FMR Program involves collaboration between the DPHHS Oral Health Program and participating schools. Each school designates a FMR Coordinator, i.e. a school nurse, a school staff member, or a community member, for coordinating the program activities with the Oral Health Program. At the start of the school year, the Oral Health Program supplies participating schools with the necessary fluoride mouthrinse supplies and an instructional manual. This manual, titled the “*Guidelines for a School Based Fluoride Mouthrinse Program*” includes participation consent forms, parent and student education materials, and explains how to manage and administer the program throughout the school year.

The school must have a signed consent form from a parent or guardian for student participation. The FMR Coordinator keeps records of the number of signed consent forms and how often the FMR Program was offered to each grade throughout the school year. <sup>Figure 2</sup>  
In the 2007-2008 school year, 246 schools participated. Data were reported to DPHHS from 166 schools and included 26,157 students. <sup>Table, Figure 2</sup>

Table: FMR Program Findings, 2007 – 2008 School Year, Montana	
Types of Schools Participating	Public, Private, Colony, Christian
Grades Participating	Preschool, Kindergarten, Grades 1 - 12
Months FMR Offered in Schools	September 2007 through May 2008
Number of Schools Participating	246
Number of Schools Reporting	166
Number of Counties where FMR Program was Offered	38
Number of Parent Consent Forms Returned to Schools	26,157
Examples of Oral Health Services other than FMR offered in Schools	Initial Rinse Program Education, Oral Health Screening by Dental Professional, Dental Health Education, Other (Dental Health Fair, Field Trip to Dentist Office, Fluoride Varnish Applications, Health and Wellness Discussions, Grungy Plaque Presentation, Sealant Program, Health Screening, Weekly Health Tips, Crest Toot Kits /Toothbrushes )
*Findings based on data reported from schools to DPHHS from 09/01/07 through 05/31/08	

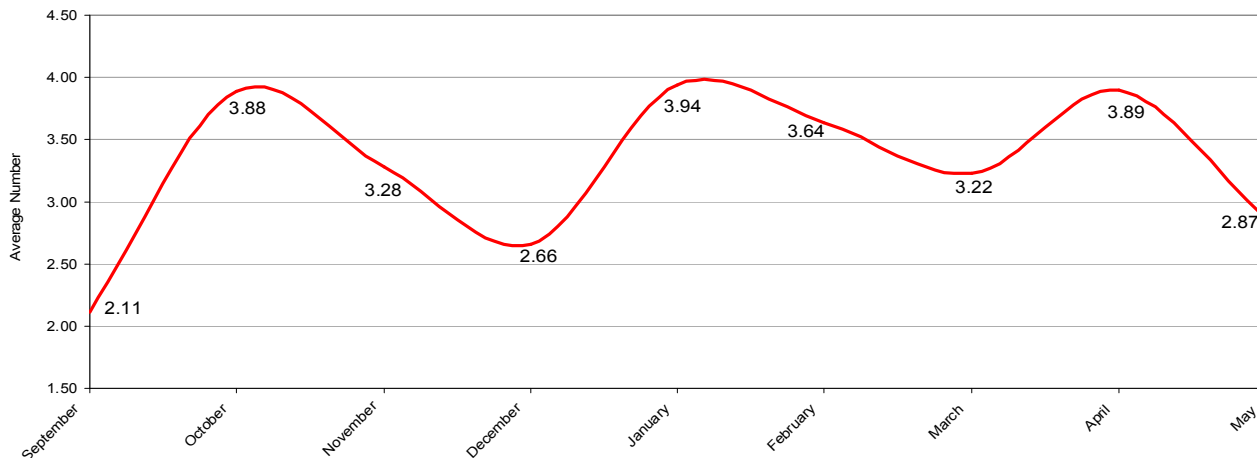
Figure 2: Number of Fluoride Mouthrinse Parent Consent Forms Returned to Schools (Kindergarten through 6th Grade), 2007 - 2008 School Year, Montana



## Average Monthly Participation in the Fluoride Mouthrinse Program

The fluoride mouthrinse program follows the recommendations of the Centers of Disease Control and Prevention (CDC) in offering the mouthrinse to each participant once a week, for an individual total of 28 to 32 rinses in each school year.<sup>5</sup> The fluoride mouthrinse procedure takes less than 5 minutes of class time each week. From September 2007 to May 2008, the statewide average indicates the mouthrinse was offered most frequently in October (3.88), January (3.94) and April (3.89) and less frequently in September (2.11), December (2.66) and May (2.87).<sup>Figure 3</sup> The months with fewer mouthrinsings reflect school vacations and the program initiation and conclusion. The average number of times the fluoride mouthrinse program was offered to children in each grade was similar.

Figure 3: Statewide Average Number of Times Fluoride Mouthrinse was Offered, by Month, 2007 - 2008 School Year, Montana



## Oral Health Activities Other than the FMR Program

Schools participating in the 2007-2008 FMR Program provided additional oral health information and services, including:

- The *Initial Rinse Program* (66% of schools), which is an education program on how the fluoride mouthrinse procedures are conducted;
- An *Oral Health Screening Program* (34%), conducted by a dental and/or health professional which includes an “open mouth exam” based on the nationally recognized Basic Screening Survey developed by the Association of State and Territorial Dental Directors and the CDC;
- The *Dental Health Education Program* (57%), whereby the Oral Health Program distributed classroom education materials prepared by the American Dental Association in recognition of National Children’s Dental Health Month; and,
- *Other Oral Health Services* (17%), such as a Dental Health Fair, a Field Trip to a Dentist Office, Fluoride Varnish Applications, Health and Wellness Discussions, a Grungy Plaque Presentation, a Sealant Program, Health Screening, Weekly Health Tips, and Crest Tool Kits/Toothbrushes.

## Recommendations to Promote Oral Health and Reduce Tooth Decay

- Brush twice a day with a pea sized amount of fluoridated toothpaste.
- Clean between your teeth daily with dental floss.
- Limit snacks, starch, and sweets that stick to your teeth.
- Eat nutritious, well-balanced meals.
- To quench your thirst – Drink water! Limit fruit juice and sport drinks.
- Visit your dentist regularly. Ask for information about sealants.

For more information contact:

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<http://www.dphhs.mt.gov/PHSD/family-health/oral-health/family-oralHealth-index.shtml>

### Resources:

1. U.S. Department of Health and Human Services, US Public Health, A Report of the Surgeon General, May 2000. Oral Health in America. Available at: <http://www.nidcr.nih.gov/DataStatistics/SurgeonGeneral/Report/ExecutiveSummary.htm>. Accessed October 15, 2008.
2. National Cancer Institute. Fluoridated Water: Questions and Answers. Available at: <http://www.cancer.gov/cancertopics/factsheet/Risk/fluoridatedwater>. Accessed September 26, 2008.
3. Morbidity and Mortality Weekly Report. Populations Receiving Optimally Fluoridated Public Drinking Water --- United States, 1992-2006. *CDC MMWR*. 2008;57(27):737-739.
4. U.S. Department of Health and Human Services. Healthy People 2010: Understanding and Improving Health. Available at: <http://www.healthypeople.gov/Document/tableofcontents.htm#toc>. Accessed November 4, 2008.
5. Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States. *CDC MMWR*. 2001;50(RR14):1-42.